

on the Examiner's initials on the Form PTO/SB/08a/b, the Examiner considered IDS cite Nos. 1-4. Applicants respectfully traverse the Examiner's refusal to consider IDS cite No. 5, the Korean Action dated November 18, 2005. As discussed by the applicants in the IDS, cite Nos. 1, 3 and 4 - all of which were considered by the Examiner - were cited in the Korean Action, which was directed to a counterpart foreign application. This was the concise explanation of the relevance of cite No. 5, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information at the time the information was submitted to the Office. Thus, the requirements of 37 CFR 1.98(a)(3) and MPEP 609 have been met. In view of the above, applicants respectfully request that the Examiner consider all information submitted in the IDS filed on February 6, 2006 and return a copy of the Form PTO/SB/08/a/b indicating that the information has been considered and made of record herein.

The Examiner rejected claim 1 under 35 USC 103(a) as being unpatentable over Yamazaki U.S. Patent Publication No. 2001/0040645 and claim 2 as being unpatentable over Yamazaki in view of Osawa U.S. Patent No. 5,892,492. Applicants respectfully traverse these rejections. The rejections are untenable because the combination constructed by the Examiner is not the claimed invention. Thus, the invention could not have been obvious, even in hindsight.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 1 recites an electroluminescent display device comprising a red pixel, a green pixel and a blue pixel. There are a red filter layer, a green filter layer and a blue filter layer provided for the red, green and blue pixels, respectively. Further, there is an electroluminescent element

having a white electroluminescent emissive layer and formed above each of the red, green and blue filter layers. Additionally, there is a thin film transistor driving the electroluminescent element and provided for each of the red, green and blue pixels, wherein the white electroluminescent emissive layer is disposed continuously over the red, green and blue pixels.

Claim 2 recites an electroluminescent display device comprising a red pixel, a green pixel and a blue pixel. As in claim 1, there is a red filter layer, a green filter layer and a blue filter layer that are provided for the red, green and blue pixels, respectively, an electroluminescent element having a white electroluminescent emissive layer and formed above each of the red, green and blue filter layers, and a thin film transistor driving the electroluminescent element and provided for each of the red, green and blue pixels. A light transmittance of the red filter layer is 50% or lower at 584 nm, a light transmittance of the green filter layer is 50% or lower outside the wavelength range between 482 nm and 588 nm, and a light transmittance of the blue filter layer is 50 % or lower outside the wavelength range between 407 nm and 516 nm, and the white electroluminescent emissive layer is disposed continuously over the red, green and blue pixels.

The claimed color filter layer is buried in the first planarization insulating film. The color filter layer is provided in each of red, green and blue (RGB) pixels and contains a pigment corresponding to each of the RGB colors. The white electroluminescent (EL) layer is formed not only on the anode layer exposed in the opening, but also on the second planarization insulating film. This makes it unnecessary to use a vapor deposition mask for forming EL layers in a position corresponding to the RGB colors to isolate them as islands.

A feature of the invention is to adjust a film thickness or a pigment concentration of the color filter layer so that the transmittance of the color filter layer of each of the RGB colors becomes 50% or less for light outside a predetermined wavelength range. Narrowing the predetermined wavelength range improves the spectral characteristics of each of the RGB colors. As a result, color purity of the panel can be secured even when using the white EL layer.

The Examiner admits that Yamazaki does not disclose the claimed electroluminescent emissive layer that is disposed continuously over the red, green and blue pixels, but contends that

it would have been an obvious matter of design engineering to a person of ordinary skill in the art to provide a continuous white EL emissive layer since applicants' claimed continuous layer does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teaching applied.

Applicants respectfully disagree. As already mentioned, the fact that the white EL layer of this invention is formed not only on the anode layer exposed in the opening, but also on the second planarization insulating film, makes it unnecessary to use a vapor deposition mask for forming EL layers in a position corresponding to the RGB colors to isolate them as islands. Applicants also disagree with the Examiner's characterization of claim elements as a "matter of design engineering." Claims 1 and 2 specifically recite that the electroluminescent emissive layer is disposed continuously over the red, green and blue pixels. Thus, the EL layer's continuous disposition is not a matter of design choice and this rejection should be withdrawn.

Neither Yamazaki, by itself in claim 1, nor in combination with Osawa in claim 2, teaches or suggests all the limitations of claims 1 and 2. Yamazaki and Osawa do not suggest at all - or show a reasonable expectation of success - that the EL layer is disposed continuously over the RGB pixels as in claims 1 and 2 and a light transmittance of the red filter layer that is 50% or lower at 584 nm, a light transmittance of the green filter layer that is 50% or lower outside the wavelength range between 482 nm and 588 nm and a light transmittance of the blue filter layer that is 50 % or lower outside the wavelength range between 407 nm and 516 nm as in claim 2. Combining Yamazaki's light emitting device manufactured using a plastic support and Osawa's plasma display panel to produce the claimed invention requires impermissible hindsight.

Even if the resulting combination suggested by the Examiner included all the limitations of claims 1 and 2, the cited references provide no evidence of a motivation to combine their disclosures so as to arrive at the claimed invention. The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination. Yamazaki is directed to technology for manufacturing a high performance electric device using a plastic support, including a plastic film and a plastic substrate. Osawa is directed to a plasma

display panel that achieves an expansion of color reproducibility and an improvement in contrast ratio by using color filters formed in stripes and successively arranged on one surface of a front glass substrate and interposing black matrices between them. Yamazaki and Osawa neither use nor suggest all the features in applicants' claimed invention. The Examiner has pointed to no disclosure in Osawa, the alleged evidence of such a motivation, which would have motivated a person of ordinary skill in the art to use Yamazaki's light emitting device manufactured using a plastic support and Osawa's plasma display color filters. Applicants' invention may be a straightforward and elegant solution to the problem it addresses, but the cited prior art is devoid of a suggestion to make it.

In determining the differences between the prior art and the claims, the question under 35 USC 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). As already explained, none of the cited references teaches or suggests the claimed invention. Applicants' claimed EL layer that is disposed continuously over the red, green and blue pixels and ability to adjust a film thickness or a pigment concentration of the color filter layer so that the transmittance of the color filter layer of each of the RGB colors becomes 50% or less for light outside a predetermined wavelength range to improve the spectral characteristics of each of the RGB colors improves color purity of the panel even when using the white EL layer, unlike in Yamazaki and Osawa. Accordingly, the invention claimed is patentable over the prior art, and claims 1 and 2 should be allowed.


In view of the above, each of the claims in this application is in condition for allowance. Accordingly, applicants solicit early action in the form of a Notice of Allowance.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing Docket No. 606402015800.

Respectfully submitted,

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